

Atty. Dkt. No. 035451-0178 (3724.Palm)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Wong et al.

Title:

WIRELESS

DETACHABLE DISPLAY

Appl. No.:

10/085,924

Filing Date:

2/28/2002

Examiner:

Laurel E. LeFlore

Art Unit:

2673

CERTIFICATE OF EXPRESS MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service's "Express Mail Post Office To Addressee" service under 37 C.F.R. § 1.10 on the date indicated below and is addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

EV 505576045 US 11/15/04

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Roberta A. Cooper

(Printed Namo)

(Signature)

DECLARATION UNDER 37 C.F.R. § 1.131

Commissioner for Patents PO Box 1450 Alexandria, Virginia 22313-1450

Sir:

We, Yoon Kean Wong, William R. Hanson, Lawrence Lam and Mark W. Oliver, state and declare that:

- 1. Each of us conceived the subject matter recited in at least one of Claims 1-8, 12, 14, 16-20, and 22-24 currently pending in U.S. Patent Application No. 10/085,924 titled "Wireless Detachable Display" (hereinafter referred to as "the '924 application").
- 2. We understand that in an Office Action dated August 16, 2004, Claims 1-8, 12, 14, 16-20, and 22-24 were rejected as being unpatentable.
- 3. We understand that the rejection of Claims 1-8, 12, 14, 16-20, and 22-24 was based in part on the use of U.S. Patent Application Publication No. 2003/0071832 to Branson, entitled "Adjustable Display Device with Display Adjustment Function and Method Therefor" (hereinafter "Branson").
- 4. We understand based on the information provided on the front page of <u>Branson</u> that <u>Branson</u> has a filing date of October 11, 2001.

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- 5. At least by September 17, 2001, we conceived the ideas set forth in Claims 1-8, 12, 14, 16-20, and 22-24 the '924 application. Such conception is evidenced by the following attached document:
 - a) A copy of an Invention Disclosure Form that indicates a conception date of 9/17/01 in Section 3, on page 2, in Santa Clara, CA (Attached as Exhibit A) and having an initialed date of 9/26/01 on page 1.
- 6. Based on the document provided herewith and our best recollection, the conception of the ideas set forth in Claims 1-8, 12, 14, 16-20, and 22-24 of the '924 application took place at least by September 17, 2001, which is before the October 11, 2001 filing date of <u>Branson</u>.
- 7. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are true, and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the patent application or any patent issuing therefrom.

Date: 11/10/04	By: Yoon Kean Wong
7/	Yoon Kean Wong
Date:	Ву:
	William R. Hanson
Date:	By:
	Lawrence Lam
Date:	By:
	Mark W. Oliver

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Date:	By:
Date: 09 Nov' 04	Yoon Kean Wong By: William R. Hanson
Date:	By:Lawrence Lam
Date:	By: Mark W. Oliver

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Date:	Ву:
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Date:	Ву:
	William R. Hanson
Date: 11/8/04	By: Xumence Sum
	Lawrence Lam
Date:	Bv:
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Date:	Ву:
	Yoon Kean Wong
Date:	В у:
	William R. Hanson
Date:	Ву:
	Lawrence Lam
Date: Nov 11, 2004	By: Find W Olim
	Mark W. Oliver

Docket Number: 3724.Palm Office Use Only

Palm, Inc. Invention Disclosure Form 5470 Great America Parkway, Santa Clara, CA. 95052.

Instructions: Any questions regarding this form should be referred to I P: 408.326.5501 F: 408.326.5509 E: mailto:Henry.Ohab@Corp.Palm.com	Date Stamp: Updated:
Wireless Detachable Display	
2. Inventors Include the names of all persons with the same and the same are more than in	no made a contribution to the conception of the
Full Name: Kean Wong	M.S.:
Home Address:	
Home Phone:	Work Phone:
Employee No.:	Work Fax:
Supervisor:	Location:
Citizenship:	
Full Name: Visplay Partent Harvesting	M.S.:
Home Address:	
Home Phone:	Work Phone:
Employee No.:	Work Fax:
Supervisor:	Location:
Citizenship:	
Full Name:	M.S.:
Home Address:	
Home Phone:	Work Phone:
Employee No.:	Work Fax:
Supervisor:	Location:
Citizenship:	
Full Name:	M.S.:
Home Address:	
Home Phone:	Work Phone:
Employee No.:	Work Fax:
Supervisor:	Location:
Citizenship:	
This Invention Disclosure Form is submitted pursuant to accordance with said agreement, you have agreed to as the above described invention and any patent applications subsidiaries.	sign and hereby do assign all rights, title, and interest in one and patents based on this invention to Palm, inc. and

3. Conception of the Invention	
Date of conception: 9/17/	01 Location of conception: Santa Clara
Date of conception.	Location of conception. Santa ciara
4: Related Art	
Is this invention an improvement of a	•
If "Yes," identify the existing product: and identify the improvement.	
What was the problem to be solved?	How to distribute computing resources to maximize utility (such as screen size, viewability, display weight, portability, RF characteristics, processing capabilities), while minimizing hand-carried weight, power consumption, etc.
How had others attempted to solve it before you?	No
What were the problems or disadvantages with prior solutions?	NA
What are the closest known prior art technology or products?	Thin clients?
5. Reference Materials List any printed publications, patents, patent applications or any other materials you are aware of which provides background material and/or prior art for your invention.	
What other companies or inventors might have prior art?	IBM, Sony, Compaq
6: Drawings of the Invention. Please submit clear drawings which if	lustrate the invention either by electronically inserting them below or by

7. Brief Description of the Invention

Describe the structure, function and/or method of the invention in just enough detail to enable someone technical to understand how you solved the problem. Explain how the invention solves the problem identified in Section 4 above

This invention describes the use of a display detached from a central processing unit, connected wirelessly to allow for information transfer.

By separating the display from the processing unit, only the display would need to be held and interfaced with a majority of the time. This offers several advantages:

- Dispersing the weight of the device: the processing unit, memory and associated peripherals (including RF interfaces) can be large and heavy. These could be worn on a belt, or be in a briefcase or bag, ... The simple display, including batteries, display memory, wireless IF and display drivers, may be lighter on its own than including the processing capabilities with the display unit.
- Allowing for larger processing capabilities (processing,, IO, RF, ...), and larger batteries by dispersing the carried weight.
- Allowing for the portability of the display device across multiple processing units: this enables upgrading the processing/RF/IO capabilities of the system as a while, while re-using the expensive display portion.

- Allowing for the portabil' of the processing unit across multiple "splays: this allows upgrading of displays according to current requirements e.g. using a low-power ePaper display on a business trip, using an emissive display when in low light conditions, using a flexible display when in rugged conditions, using a fixed, larger display (e.g. TV, electronic whiteboard) when available, ...
- Decreasing carried weight (the weight of the components needed to interface with the system), and thereby decreasing access time by making the display highly portable

The processing unit would communicate with the display and transmit information to be written to the display via a wireless (RF, IR, ...) interface.

In a simple example, the display just displays a bitmap of the information presented from the processing unit.

In a more complex example, the processing unit could load several pages of information to the display, the display would include some IO capability to allow the user to navigate the information, and when the user wished to navigate to information not on the display unit, the display unit would query the processing unit for the relevant data.

The display could include: a display, display drivers, display memory, a power supply (probably a battery or equivalent), and wireless communications (such as BlueTooth, or a low power, short range system). The display may also optionally include a minimal amount of processing power, IO interfaces (touchscreen, memory card interface), lighting structures, RF devices (the remote display may offer better antenna characteristics than just the base unit), be part of a diversity antenna, ...

The processing unit could include: volatile and non-volatile memory, processing capabilities, a power source, and wireless communications with which to interface with the display. The processing unit may also include IO interfaces, RF interfaces, displays of it's own, location-sensing interfaces, ...

8. Strategic/Tactical Value of the Invention

Very briefly, explain how this invention will have strategic value to the company. That is, how could such a patent help Palm, Inc. and/or how could such a patent adversely affect our competitors, both in the present and in the future?

Lighter devices enabling a better user experiences and product differentiation. Re-use of system components (displays or processing units). Competitive advantage due to flexible system design.

9. Joint Development or Developmen Was this invention jointly developed with i		√ No Yes
Please identify the company and/or non-Pa	• •	
	,	
10 Release Expected/actual date of first public release or showing of invention or		
product incorporating or using the invention.	None	

11. Publication of the Invention

If "Yes," when and to whom?
If there is a particular patent attorney with whom you would like to work on this disclosure, suggest his/her name.
If there is a particular patent attorney with whom you would like to work on

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